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THOMAS G. NEWMAN,
EDITOR.

Vol. XXVIII. July 23, 1891. No. 4.

Editorial Buzzings.

After the shower, the tranquil sun;
After the snow, the emerald leaves;
Silver stars when the day is done;
After the harvest, golden sheaves.

Six Centuries Ago the Swiss Republic was created, and on the 19th inst. the Swiss inhabitants of Chicago celebrated that anniversary. Ex-Mayor Harrison was called upon for a speech, and it is wonderful how the partaking of some honey before he started to address them, woke up his energies and sweetened his speech. Here is an extract from his "honeyed words," as given in the *News* on the following morning:

There are two spots on the map of the Old World which are dear to every lover of freedom. One is Greece, the other Switzerland. This very day I have eaten of the honey of Hymettus, the honey of which Homer sung 3,000 years ago. It was sent me by a lady living in Greece. Another friend sent me some olives, grown on the Athenian hills. To-day I have eaten the honey and olives of Greece, and now I am reveling in edelweiss, and talking to Swiss freemen.

He went on to eulogize the brave men who have maintained Swiss independence, told the story of Tell and Gessler, and lifting a corner of the American flag at his right, told his hearers to be good citizens, and stand up for the stars and stripes, so that Switzerland will be proud of her children in this new and greater republic.

Bee and Honey Exhibits.—We have received a letter in relation to bee and honey exhibits at fairs, and would refer the writer to an article on that subject appearing on page 70 of the BEE JOURNAL for Jan. 15, 1891, and to "Facts Concerning Bee-Keeping," on page 16 of the BEE JOURNAL for July 2, 1891. Should any of our friends have any further points or suggestions to offer on this subject, we will cheerfully publish the same. Here is the letter:

Will some of the able contributors to the BEE JOURNAL write an article to be read before agricultural societies, to induce them to be more liberal with bee-keepers, as regards space, premiums, etc. In this part of the country, it is a hard matter to secure space enough to make a creditable exhibit without paying an exorbitant price. I think that if we had something to start them to thinking, and show the indifference exhibited toward our industry at county fairs, it would be a step in the right direction, and the sooner it is taken, the better. If you will kindly publish this, and any articles on the subject, in the BEE JOURNAL, you will greatly oblige the undersigned, and many others.

Myrtle, Ont. IRA J. DEBOYES.

World's Fair.—Some 24 foreign nations have now officially accepted the invitation to participate in the World's Columbian Exposition. Russia, Turkey, Denmark, Persia and Egypt are among the recent acquisitions. Thus far an aggregate of $2,695,000 has been appropriated by 29 States for representation at the World's Fair.

Canton, Ills., is still stirred up about Mr. Cole's bee lawsuit. In the Canton daily *Register* we notice that he has advertised to sell his bees very cheap to some one who will move them away.

The *Register* also copies from page 41 of the BEE JOURNAL, our remarks on the case, and in the next column charges the Mayor and Aldermen with inefficiency for not attending to their duties in keeping the city clean, and averting a threatened calamity in the form of epidemic diphtheria and scarlet fever. Here is an extract from the article, and it shows how unpopular the Mayor and Aldermen are at home:

But here in Canton.....physicians report cases of contagious disease to the Mayor, who sends the City Marshal to tack up a notice on the infected premises, and that is all. Is it any wonder that diseases getting a foothold here retain it? Is it not a wonder that before this time scarlet fever and diphtheria both have not become epidemic?

If the epidemic finally comes.....the *Mayor and Aldermen* of Canton, and the *Mayor especially*, will richly deserve the execrations of a community, the interests of which they seem to forget that they ever swore to serve.

A year ago, when the *Register* voiced the demand of the people of Canton for a rigid sanitary ordinance, and an efficient Board of Health or Health Officer to attend to its enforcement, Mayor Maple promised that such an ordinance should be speedily prepared and presented to the Council. He prepared the ordinance, but it was never presented. Mayor Maple considered further—and pocketed it. This may, or may not, have been in order that His Honor might pocket also the $200 which he claimed, and was allowed at the close of the year, for maintaining a vacancy in the position of Health Officer for twelve months.

The *Register* desires to inquire of the Mayor and Aldermen of the City of Canton, whether there must be an epidemic or a hanging before the health of this community can be as well protected as that of others?

Perhaps these officials have been too busy persecuting Mr. Cole to be able to attend to their official duties.

Illinois Bee-Keepers should read carefully the following letter, and immediately state their views on the proposition made by Mr. Jas. A. Stone. We heartly endorse the idea. A conference should be had at as early a date as possible, and the time and place suggested will probably be as good as any that can be arranged. Let all who are interested be heard from at once. Here is the letter:

I am decidedly in favor of the proposition made in the BEE JOURNAL of July 9, on page 40, under the heading of "Illinois Bee-Keepers." We always have a meeting of the bee-keepers at our fairs, and the Honey Department is their headquarters.

Now, if some particular time can be named which will be understood by all, there will be without doubt a good representation, and no better opportunity could be had for arranging a programme for the annual meeting. And if it is thought proper, a place for meeting in the city will be arranged for.

I will suggest that our President, P. J. England, name the time of meeting at the Springfield Exposition, Sept. 7 to 11, and that it be as early as Wednesday, in order that if necessary our meeting can be adjourned to the city at a later day, or have time for extended meetings at the fair.

I believe that the bee-keepers of our State ought to show, in the best way they can, their appreciation of what our last Legislature did to advance our interests, for upon the manner in which we treat what has been done, depends what we may yet hope for in the future.

So if we do not obtain what we want in times to come, we will only have to look back to the present and condemn our inaction. JAS. A. STONE.

Bradfordton, Ills., July 16, 1891.

Leininger Brothers, of Fort Jennings, O., have sent us a cage of their yellow bees. They are really beautiful, large, and well-marked. They say that these bees are the progeny of an untested queen which they mailed to Douglass, Ohio. They may well be proud of their stock, for they add: "Most of our queens reared this season produce bees with 4 or 5 golden bands."

WORK AND PLAY.

E. H. DIEHL.

Meand'ring through a shaded field,
One Spring-like morn in early May,
I 'spied two gophers, half concealed,
Upon the grass in guileless play.

They ran, with almost breathless speed,
Around a clump of cherry trees,
Among whose fragrant blossoms flit
A countless swarm of honey-bees.

They stopped a moment, stood erect,
With forefeet pendant on their breast,
In studied effort to detect
Approaching danger to their nest.

One moment more, a trampling sound
Apprized them of the approaching foe,
And quick as thought, into the ground,
Their little striped forms they throw.

The busy bees still worked and sang,
Intent on earnest labor done;
While all the woods with music rang,
Beneath the brightness of the sun.

Those idle gophers! where are they?
Secluded in their cozy den,
To while an hour or two away,
Then slyly to come forth again.

What lessons have I learned to-day,
From Nature's bright, enchanting scene?
That earnest work and idle play,
In all God's kingdom may be seen.

Leeseburgh, Ills.

Queries and Replies.

Disposition of Swarm to Prevent Increase

QUERY 776.—Which is the best way to prevent increase, to return the swarm to the parent hive, or unite it with a weak colony?—W. S.

It depends on circumstances.—C. C. MILLER.

Unite it with the weak colony.—J. P. H. BROWN.

Neither; but of the two, the latter.—JAMES HEDDON.

There would be no increase either way.—R. L. TAYLOR.

Return the swarm, remove the queen, and destroy all the queen-cells but one.—M. MAHIN.

That depends upon the kind of a swarm. I should return all but the first.—MRS. L. HARRISON.

That depends upon circumstances. I could best determine if I was upon the ground.—J. M. HAMBAUGH.

It would depend on circumstances. I have united a swarm with a weak colony with good success.—H. D. CUTTING.

The most profitable way to prevent increase is by the new system of management described in my book.—G. L. TINKER.

Either way will prevent increase, but it is difficult to find a weak colony at swarming time, unless it be a queenless one.—DADANT & SON.

To return, if managed well, will succeed; and to give to a weak colony, after removing the queen, succeeds with me in nine cases out of ten.—A. J. COOK.

Remove the queen from the weak colony, and shake the bees out on a sheet in front of the hive, then dump the swarm on the sheet, and let them all run in together.—C. H. DIBBERN.

If you have weak colonies, build them up that way, but one queen should be removed. Swarms returned to the parent colony will not always "stay put."—EUGENE SECOR.

If you are working for comb-honey, and try either plan, I think it will result in vexation of spirit. Prevention of increase and comb-honey do not work well together.—G. M. DOOLITTLE.

It will depend upon the condition of the apiary. If it is desired to build up the weak colony, unite. If returned to the parent hive, the chances are that a swarm would soon issue again.—J. E. POND.

Take away the brood, and put empty combs, or frames with foundation, or starters only, in their stead, and hive the swarm back where it came from. The brood may be given to weak colonies if you have them, but if not, put a queen-excluder on the brood-nest over the swarm, and put the brood in a super or hive body, and tier up on the queen-excluder. This forces the queen to commence anew below the zinc excluder, and if the queen is not old, or otherwise objectionable to the bees, there will be no more swarming, and you will have a rousing colony, able and willing to store all the honey in sight.—G. W. DEMAREE.

Topics of Interest.

Rapid Increase to Preserve Combs.

G. M. DOOLITTLE.

A correspondent writes thus: "I lost four-fifths of my bees last Winter and Spring. What shall I do to preserve the combs, and how can I increase the few remaining colonies so that they will again take all the combs? Please answer through the AMERICAN BEE JOURNAL.

As I propose to answer the first question by telling how to do the latter, I will dwell on the first only long enough to say, that if the bees are so reduced that they cannot possibly be multiplied so as to use all the combs left by those which have died, the only thing to do is to fumigate them with burning sulphur every two or three weeks during warm weather, unless you have some moth-proof room, in which you can place them, after fumigating twice—which should have two or three weeks intervening between the times, so as to allow all eggs to hatch.

The hanging of combs two or more inches apart cannot be depended upon, as I have had quite a number of combs destroyed in trying that plan. I am sorry that this question could not have arisen a little earlier, for by the time it comes before the readers it will be rather late; but perhaps it will be in time for those in the extreme North, and those in the South can preserve what they wish of it for another year.

The main question before us, then, is how to increase the few remaining colonies as much and as early as possible. As nothing can be gained by trying to increase colonies until some of them have their hives full of bees and brood, I advise all to wait until at least *one* is strong, before trying the plan. When you have such a colony, and desire to proceed, make a box which will hold about six quarts, having two sides covered with wire cloth, one of which is to be removable, so that the bees can be shaken out of the box when desired.

Besides this box you will want a large funnel, such as is used in putting up bees by the pound, a hole being made in the top of the box for the funnel to go into, and some means provided for shutting this hole after the bees are in. In addition to the strong colony, it will be necessary to have one other fair colony, and if any do not have such a one, I should advise the purchase of one, or a pound of bees with a queen.

Having 2 colonies, such as is referred to, I proceed to the strongest and get a pint of bees which are caused to fill themselves well with honey before they are shaken down through the funnel into the box; and it is also very essential that you are sure that you do not get the old queen with these bees. These bees are now placed in a dark, cool place and left for four or more hours, until they are very "hungry" for a queen, when the queen from the weaker colony is given to them, and the bees and queen left in the box until the next morning.

A frame of brood is now taken from the weaker colony and a frame of honey from the stronger, when both are placed in a hive, and the little swarm from the box hived on these combs. The colony from which you took the queen is now allowed to build queen-cells, which should give better queens.

As soon as the first cell is sealed, you are to form another little colony in the same way, and from the same full colony as before, also using the same queen to form it with; when in 48 hours, this first cell which was sealed, should be given to the little colony, using bees each time from the strong one, and the same queen to form each colony with. In 48 hours a cell is given to the second little colony, and thus we keep on forming little colonies as long as we have cells or virgin queens to give them; for if the cells are not all used up when it is time for the first young queen to hatch, all but one (which should be left for that colony) are to be cut out, and placed in a queen nursery, so that we can use virgin queens instead of cells.

If we were successful in getting a good lot of cells, we shall have, at the time the last virgin queen is used, from 10 to 12 colonies of bees, into which we now begin to place the combs we wish to keep the moths from. I forgot to say, that, after making the first little colony, a comb should be placed in the strong colony in place of the frame of honey taken from it; and that for each succeeding colony formed, this comb, now having a few eggs in it, is taken out and another put in its place, while the frame of honey should be taken from those you wish to preserve from the moth.

In putting the frames of comb in the little colonies, I place them beyond the division-board until the queen gets to laying, when, one by one, they are placed in the brood-nest, as the colony gets strong enough so the queen will fil

them with eggs. The bees will care for the combs as regards keeping the moth from them, just as well beyond the division-board as they would if no division-board were there.

When the last little colony is made I use nearly three times the bees in making it, and give, when hiving them, two or more frames of hatching brood, so that in a week or so I may again have a fair colony to rear queen-cells from—for, at the expiration of about two weeks the same operation is to be repeated, and 8 or 10 more colonies formed.

Again, in two or three weeks, or as soon as the original strong colony is in fine condition, more are formed; but as it grows later in the season, a quart or more of bees are taken to form the colony, instead of a pint. Finally, as Fall draws on, the first formed little colonies are strong enough to spare bees. At this time I take bees from 3 or 4 colonies, thereby getting bees enough to make a good, full colony at once.

By the above plan it is easy to build up a depopulated apiary again, especially if you are willing to feed liberally when honey is not coming in from the fields; and I believe it is far cheaper than to buy bees by the pound, and queens to be put with them, as many do.

Borodinó, N. Y.

Arrangement of Hives and Buildings.

W. Z. HUTCHINSON.

In a small apiary, the matter of arrangement is not of great importance; but as the number of colonies begins to approach a hundred, the question of arrangement becomes one of considerable moment. Two things need consideration—the convenience of the operator, and the giving of such an individuality to each hive that each bee can readily distinguish its home.

Before discussing these points, it might be well to say a few words about the location of the apiary. First, it ought to be some distance from the highway. What this distance should be depends upon what there is between the bees and the street. If there are buildings or trees, or even a high fence, the bees may be quite near the road, as, in their flight, they rise above these obstructions, and thus pass over the heads of the passers-by.

If there is nothing between the apiary and the highway, the apiary ought not to be nearer the street than 10 rods, and 15 or 20 rods would be better. It is possible, with a small apiary, to avoid trouble, even if it is located quite near the street. If it is necessary to handle the bees when no honey is coming in, and the handling is likely to irritate them, such work can be done just before dusk, when the bees will not fly far from the hive; but in a large apiary there is too much work that must be done when the bees may not be in an amiable mood to enable the operator to perform it during the twilight of evening.

If necessary, the bee-keeper can protect himself with a veil, and, armed with a smoker, he can go on with the work, even if the bees are a little "cross," but the apiary must be isolated.

Nearly level ground is preferable for an apiary. If it slopes gently to the south or east, so much the better. It should never be in such a location that water will stand upon the ground.

I have tried placing the honey-house in the center of the apiary, and having the hives in long double rows, that radiated from the honey-house as the spokes in a wheel radiate from the hub. In each double row a space large enough for a wheelbarrow is left between the rows, and the entrances of the hives are turned away from the path left for the operator and his wheelbarrow.

So far as reducing the labor of going to and from the hives is concerned, this arrangement is excellent, but it has the very serious objection that only part of the apiary can be seen at one glance from the honey-house. In watching for swarms it is necessary to look in *four* different directions in order to ascertain if a swarm is out. When the honey-house is at one side of the apiary, the whole apiary can be taken in at a glance.

Other things being equal, the south side of the apiary is preferable for the honey-house. In looking for swarms the bee-keeper does not look toward the sun, but has the clear northern sky for a background, while the shady side of the building, which will be naturally sought by the tired bee-keeper as the best spot in which to take a breathing spell, is toward the apiary.

It is universally admitted that it is best that the honey-house be upon the side of the apiary, and most bee-keepers are in favor of having the building two stories high, using the upper story as a store-room for hives and fixtures, the lower story for work-shop and honey-room (the latter being partitioned off by itself), and the cellar under the building

for wintering the bees. The usual mistake in making such buildings is in not having them large enough.

The honey-room ought to be located in the southeast corner of the building, and the walls made of some non-conductor of heat. Some even paint the outside of the building some dark color where they come over the honey-room, in order that as much as possible of the sun's heat may be absorbed. The idea is that the honey must be kept as warm as possible.

If there is any unripe or unsealed honey, this high temperature causes evaporation and improvement. By keeping such a room warm with a stove in Winter, honey has been kept over until another year, and actually improved by the keeping.

But to return to the arrangement of hives. When the honey-house is at one side of the apiary, the hives may still be arranged upon the radiating plan, by having them radiate from the honey-house door, thus forming one-half of a large wheel instead of the whole of a small one, as in the case of having the honey-house in the center. Where the radiating rows are very long, they must be very far apart at the outer ends, or else very close together at the inner ends. To remedy this, shorter rows, or "spurs," are put in between the rows at the outer ends.

Another arrangement is that of placing the hives in a hexagonal manner, each hive being the center of six others. I see no particular advantage in this arrangement.

Still another arrangement is that of placing the hives in circles. The entrances of the hives in the inner row are turned toward the center, while those of the outward row face outward. This leaves the space between the two rows compartively free from bees, and the operator can work in this space without annoyance to himself or to the flying bees.

If the two circles do not permit sufficient room, more and larger circles may be added, or there may be two sets of circles, or three sets, arranged in the form of a triangle, or even four sets, and arranged in a quadrangle.

In all of the large apiaries that I have visited the hives were arranged in straight, single rows, like the squares of a checker board, the entrances in some instances facing the same way, when the hives were from six to eight feet apart. I would prefer to have the hives nearer together each way, and have the entrances of each alternate row turned toward the east, and the entrances of the hives in other rows turned toward the west.

This would leave each alternate passage-way comparatively free from bees, and the operator could work here without the bees bumping their heads against his. I would have the entrance to every hive face either east or west, because I wish to shade the hives with a light board 2 by 3 feet in size, laid over each hive, and projecting towards the south, and this projecting board would be in the way of the flying bees if the entrances were upon the south side. When the hives are arranged in rows radiating from a common center, I always turn the entrance of each hive so that it is either east or west.

There is no necessity of placing hives further apart than is requisite to afford sufficient space on all sides for the operator. Bees do not locate their hive so much by the distance that it may be from other hives, as they do by its surroundings, and these surroundings are usually other hives.

To illustrate: Let the end hive be removed from a long row of hives, and the bees belonging to the removed hive will almost unhesitatingly enter the hive that has *become* the end hive in the row. Two hives may stand side by side, perhaps almost or quite touching each other, and each bee has no difficulty in distinguishing its own hive. In a row of three, four, or even five hives, the same might be said; but when the number goes beyond this, there is a little uncertainty about the matter.

When their hives are in long rows, some bee-keepers arrange them in groups of three or five in the row, leaving a wider space between the groups than there is between the individual hives composing a group. Arranging hives in circles gives a greater individuality to each hive than can be secured in almost any other arrangement—that is, if the entrances are faced directly into or out of the circle; but my objection to this plan is that it interferes with the proper use of shade-boards.

The greatest objection to any uniformity of arrangement that makes it difficult for the bees to "mark" their location, is that queens may enter the wrong hive on their returns from their "wedding trip." With my method of management, in which the hive containing the young queen is given a new stand to prevent after swarming, *a la* Heddon, this difficulty is easily remedied by placing the hive in some location

that is easily marked—the end of a row, for instance.

When this cannot be done, the hives containing unfertile queens may be marked in some conspicuous manner that will easily enable the queen to distinguish her own hive. I believe that where foul-brood is in an apiary, this regularity of arrangement leads to a greater danger of spreading the disease by bees from infected colonies entering some other hive by mistake.

In queen-rearing, it is important that the small hives containing the males be scattered about promiscuously; the greater the irregularity and oddity of arrangement, the less will be the loss of queens from their entering wrong hives. But in a large apiary, managed for honey, it is doubtful if there is a better arrangement than that of placing the hives in rows; and it seems to me that a little is gained, and nothing lost, by having the rows radiate from the honey-house door.—*Country Gentleman.*

Experience of a Beginner.

J. E. PRICHARD.

I bought the only colony in a movable frame hive in this vicinity, and when I opened it this Spring during apple bloom, one-half of the bees were drones, and also about one-half the brood was drone brood.

I killed quite a lot of the drones, and cut off the heads of over half of the drone brood, and in doing so I cut the heads off of some of the worker brood, and the remainder I placed on top of a colony in a box-hive, under the cap, or super, and the bees fed and reared them nicely.

I did not see the queen. Perhaps I killed her in removing the frames, as they were very crude affairs, and had not been moved for 2 or 3 years.

I opened the hive again in about 3 or 4 weeks, and finding no brood, no eggs, no queen, and only a little honey, I purchased a queen and introduced her on June 10 or 11, and now have three frames of sealed brood, with three frames of brood hatched out—as nice a colony as any apiarist could produce in so short a time. But it seems to me the older apiarists speak in riddles often; for instance, when speaking about feeders and queen-cages being introduced over the cluster on the frames. I do not know about the feeders, but the cage is ¾ of an inch thick, and as the space above the frames is only ¼ or ⅜ inch, how are we to replace the cover? I laid the cage down and got some ⅝ strips and tacked on the upper edge of the hive, thereby making room.

I bought six dovetailed hives complete, and filled them with foundation this Spring, expecting to have at least four swarms, as the box-hives are full to overflowing, but not a swarm, and when I go out to the bee-shed and see them loafing around, I feel like kicking them over (and I dare do it, for I have a Globe veil and a Bingham smoker and plenty of pluck), but will wait a little while.

If I only had them in my movable frames, I would stop that loafing. I am well pleased with the prospect of my Italian queen. She is a "daisy."

Port Norris, N. J., July 9, 1891.

Getting Bees to Work in the Sections.

DR. C. C. MILLER.

The following questions came from H. Hine, of Sedan, Ind.:

What is the reason that bees will not store honey in the surplus boxes (which were put on new), when swarms will fill the brood-frames in less than three weeks? What can I do to build up a weak colony at this time of the year?

In reply, I would say that as long as there is plenty of room in the brood-chamber, bees do not care much to go off some distance from what is really their home, to store the provision that they expect to use in the brood-chamber.

You may, however, hold out sufficient inducement to get them to work in the surplus apartment much sooner than they otherwise would do so. If you put a bit of drone-brood, or even worker, in the surplus apartment, the bees will promptly go up to care for it, and then if they do not store surplus there, you may be pretty sure they have no surplus to store.

Generally it will be sufficient to put into the super a section that has been fully or partly worked out into comb, such sections being often left over from the previous year. After you have succeeded in getting one colony to working in the super, you will find it work very nicely to take partly-filled sections from the super where the bees are at work, bees and all, and put it in the super of a balky colony. See how soon

they will go to work; always provided that they need the room to store.

There is no little difference in colonies about commencing work in the supers. Some will fill their supers nicely, leaving abundance of empty cells in the brood-combs while they are at work in the supers, while others will leave the supers unoccupied, and cram the brood-combs full, and build burr-combs in all directions.

To build up a weak colony at this time of the year requires no great skill. If they can get enough stores from the field to build upon on, they only ask to be let alone. Possibly, however, you want to know how to make them build up faster. Well, you can give them help from the stronger colonies. But do not make the mistake of thinking that you can take from the strong and give to the weak, and thus increase your crop of honey, if that crop comes from anything as early as clover or linden. Better, in that case, take from the weak and give to the strong.

But if you want to have more colonies to work on a late crop, or if your object is to multiply colonies, without regard to the honey crop, then you may do well to help the weaklings. You may do it either by giving them young bees or brood.

Shake the bees off of a frame (or several frames) in front of a hive to be strengthened, and all bees young enough will remain with the colony where they are shaken.

On the whole, it may be more satisfactory to strengthen them with brood. Take from the strong colony a frame of brood which is nearly all sealed, and give to the weak one, but be sure that they have bees enough to care for it. When the weather is hot, a very few bees will care for several combs, for if the brood is all sealed, it will take care of itself pretty much. Look out for cold nights, though, and have all tucked up warm.

Marengo, Ills.

Apicultural Notes from Nebraska.

J. M. YOUNG.

The basswood bloom was of short duration in this vicinity, consequently but little honey was obtained from it.

By using the Porter bee-escapes, all the bees have left the combs in 24 hours with me. I find that they will leave honey-boxes much quicker than extracting combs. I shall use a number of them this Fall and next year. Too much cannot be said in their praise.

I seldom remove the cases from the hives that hold my honey-boxes, but allow them to remain on all Summer. I keep close watch, and whenever any sections are filled, they are taken out and empty ones put in their places.

Separators are not used in my apiary, but from the number of thick, uneven sections of honey this year, it seems that they will be a necessity next year.

Fifteen hours a day, for the past month, would be a fair average in my apiary and grounds for a day's work, besides keeping up my correspondence by lamp light.

My apiary numbers now 82 colonies, including swarms. Most all of the swarms are domiciled in new, dovetailed hives.

Plattsmouth, Nebr., July 16, 1891.

Discovery of the Cause of Foul-Brood.

WM. M'EVOY.

My first experience with foul-brood was in the Spring and Summer of 1875. In April of that year one of my colonies swarmed out, and about two-thirds of the bees got into another colony before I got the hive closed. I then put the remainder of the swarm and its queen back into the hive they came from.

Then, about sundown, when the bees had settled for the day, I examined the colony, and found plenty of both brood and honey, but a very small cluster of bees—too small to cover or care for all the brood—and if the bees that got into the other colony had been in the hive there would not have been any more than enough bees to cover and care well for all the brood.

In 1881 I wrote up my discovery and cure of foul-brood and mailed it to *Gleanings*, but it was not published.

In January, 1884, I wrote up the cause and cure of foul-brood for the *Canadian Stock Raisers' Journal*, where it was printed.

I thought I was all alone in the world on the *cause* of foul-brood, and never read or heard of Mr. C. J. Robinson or any other ever having discovered the *cause* of foul-brood until I read his letter in the AMERICAN BEE JOURNAL of Nov. 1, 1890. I will use that letter wherever I go to prove that I am in the right on the *cause* of foul-brood.

I never scalded or boiled, or advised any bee-keeper to scald or boil, any hive

that foul-brood had been in. It is what is fed to the brood that causes foul-brood, and not the empty hive. My experience is that the empty hive never —*no, never*—gave the disease to any colony of bees.

I have found the disease in 19 counties and 3 cities in Ontario. In all about 600 colonies had foul-brood, and I burned 10 colonies out of the 600, and those 10 would not have burned, but the owners would not do anything but sell the diseased colonies to ruin some one else, so I had to burn them according to law. I have been in the bee-business 26 years. It is my only business, and has been for many years.

I never saw a copy of the *Kansas Bee-Keeper*, and only saw a few copies of the *Bee-Keepers' Exchange* just after it started, and never saw or heard of Mr. Robinson's discovery until I read it in the AMERICAN BEE JOURNAL of Nov. 1, 1890. I would not do such a small thing as even try to claim another man's discovery. I discovered the cause in 1875, but I do not care to take any credit for the discovery. It was not for the sake of claiming to be the original discoverer of the cause that I wrote what I did in the Official Bulletin. I wrote that in the bulletin to show the bee-keepers that foul-brood was *caused by the rottiny of uncared-for brood, and that that was the whole, sole, real, and only cause* of foul-brood.

Woodburn, Ont.

Some Facts Concerning Honey.

HENRY BEATTY.

The honey harvest has come once more, and there are a few facts in connection therewith that should not be overlooked.

Sugar and water are the principal constituents of honey. Upon them, and the temperature, depends its density. One pound of water at 55° F., will dissolve about two pounds of sugar (it depends somewhat upon the purity of the water and the quality of the sugar).

In a higher temperature it will dissolve more sugar, but if the temperature falls below the point where the water is saturated with sugar, part of the sugar will granulate, and continue to do so until the water contracts to its maximum density (39° F.).

If bees gather honey when the temperature is high, and the air not being saturated with moisture, due to its temperature, much of the water is evaporated before the bees collect it, and it will granulate in a higher temperature (under the same conditions) than that which is gathered when the air is saturated with moisture.

"If the adhesive attraction between the solvent and the dissolved solid can be overcome, cohesive attraction resumes its sway, and remits the molecules of the solid. This change may be effected in various ways, as, when the solvent is removed by evaporation, or when another liquid, having no chemical effect upon the solid, is mixed with the solution. When a solution is evaporated, the solid is deposited, either during the process, or remains at its close."—Youman's Chemistry, page 34.

Thin extracted-honey, placed in a room where the temperature is high, and with but a small surface exposed to the air (to "ripen") is decidedly bad. It will deteriorate in quality, while it will receive but little if any benefit from evaporation.

"Four causes influence the rapidity of the evaporation of a liquid: 1. The temperature. 2. The quantity of the same vapor in the surrounding atmosphere. 3. The renewal of this atmosphere. 4. The extent of the surface of evaporation. Increase of temperature accelerates the evaporation by increasing the elastic force of the vapors. In order to understand the influence of the second cause, it is to be observed that no evaporation could take place in a space already saturated with vapor of the same liquid, and that it would reach its maximum in air completely freed from this vapor. It, therefore, follows that between these two extremes the rapidity of evaporation varies, according as the surrounding atmosphere is already more or less charged with the same vapor."—Ganot's Physics, page 283.

If comb-honey is placed in a high temperature, the water in the honey will expand and break the cappings. Hence, fermentation takes place.

"When the sweet juice of fruits or plants is exposed to the air at the temperature of 70° or 80° F., in the course of a few hours, a change commences; small bubbles, consisting of carbon dioxide, rise to the surface, the liquid becomes turbid, and begins to ferment, or, as is commonly said, 'to work.' After a time the bubbles cease to rise, and the liquid is no longer sweet, but has acquired a spiritous taste."—Youman's Chemistry, page 304.

The best way to take care of extracted-honey is to put it in tight packages, in a

cellar or cool room, and invert the packages every ten or fifteen days, to keep the sugar from settling to the bottom. The sugar being heavier than the water, will settle to the lower layers of the water and granulate.

Comb-honey should be kept in a dry, cool room.

Massillon, O., July 6, 1891.

Transferring Bees from Box Hives.

GEO. E. HILTON.

I frequently get inquiries in regard to transferring bees and combs from one size of frame to another, or from old boxes and other receptacles, into movable frames, and as the season is approaching for that kind of work, a few thoughts and suggestions may be timely.

WHEN IS THE BEST TIME TO TRANSFER?

I know of no better guide than the blooming of the apple trees; this, as a rule, means settled warm weather; a little honey is coming in at this time to assist the bees in patching up the broken combs; there is but little honey in the hives, which makes the combs easy to handle; there is considerable brood in all stages that will help to replace the loss—which is only temporary, and is soon overcome by the extra exertions the bees will put forth, for they seem to appreciate their new and better quarters, and show their appreciation by doubling their energies.

HOW TO TRANSFER.

Transferring from an odd-sized frame to a standard is an easy matter, especially if the old frame is the larger. For convenience we should have a table near the place of operation, and this should be covered with an old quilt to protect the brood. Move the old hive by your side in a convenient position, place the new hive on the old stand, give the colony a moderate smoking, and lift out one of the frames, brush all the bees down in front of the new hive (which should be arranged so they can run in readily).

You should have some string, such as they tie up merchandise with, cut in pieces long enough to go around the new frame and tie at the top; lay about three or four of these on your table in the length of your new frame; now lay your old comb directly on these strings, and with a thin, sharp knife cut the comb loose from the old frame. If you keep your knife in a pan of hot water, it will work all the better.

If your new frame has a comb guide in it, I should remove it. Now, lay the new frame on the comb, and with your knife cut the comb so that it will fit closely against the top and bottom bars, and as near as you can endwise. If one comb will not fill the new frame, use as many as needed.

You need not be particular about fitting the pieces together; the bees will fix that better than you can; some of the best combs in my yard were secured in this way; you see it makes a full frame of comb from top to bottom, and end to end, and for extracting purposes they are the best. Now you have only to continue this operation until all the combs are transferred, or your new hive is full, hanging the new frames in the new hive after tying the strings tightly at the top.

As soon as the combs are securely fastened in the frames, the bees will gnaw the strings in pieces, and drag them out, making you no further trouble. A few bees will be left in the old hive; these will not fly, but should be scooped out with a thin shingle, a piece of pasteboard or something, the hive well smoked and moved away, and the work is done.

In transferring from box-hives the operation is a little different in the beginning, but the latter part the same. First, smoke the bees in the box, then turn it bottom side up at your side near the table.

You should have a rough box about the size of your box-hive; place this over the inverted bottom, and gently rap on the sides of the box-hive for about five minutes, and the greater part of the bees and queen will go into this upper box. They can be set to one side, and will be out of your way, otherwise they keep going to the further side of the hive, and at last you have a mess in which you may lose your queen.

Now, remove the side of the hive that is the nearest parallel with the combs in the box, cutting the combs loose that are attached to the side, set your box-hive right on the table, loosen the first comb at the bottom as it now stands first—and here you will appreciate your hot knife—then the two sides, and let it tip over on the table.

In box-hives you will find considerable drone-comb. This should first be cut away and thrown into a shallow pan, then lay your frame over the comb and cut and tie as before, hanging the frames of comb in the new hive that has been

placed on the stand where the box-hive stood. Repeat this operation until you have filled your frames from the best comb in the old hive.

You will now have a lot of scraps of comb left, containing more or less honey; these should be placed in a shallow pan, and placed in the upper part of the hive on top of the frames, leaving a small hole at the back end of frames for the bees to come up. They will soon find it, and carry it below where it will be of value to them. Cover or close the top of the hive tightly, shake the remaining bees from the old box down in front of the hive, also those in the box you used to get them out of the box-hive, and the work is done.

After the bees have cleaned out the refuse combs, you have a nice lot of comb to make into wax. This should be attended to at once, as it is valuable, and becoming more so every year. We have wax extractors, but if you do not care to purchase one, you can put all your comb into a stout porous bag—burlap is good—place a piece of board in the bottom of your wash boiler, put in your bag of comb, and place a weight on this to keep it under water.

Fill your boiler with water, and boil it for an hour or more. Turn the bag over occasionally, and when done, set the whole thing off to cool. When cool you will have a beautiful cake of yellow wax on top of the water. You cannot burn your wax in this way. You can remelt and cake in any form you desire.—*Michigan Farmer.*

Fremont, Mich.

Summer and Fall Management of Bees.

C. J. ROBINSON.

In most sections of the temperate zone, July is, for bee-culture, the deciding month—stamping the character of the year either as good, middling, or bad. It is the real "harvest moon" of the bees. The colony which is to prove profitable to its owner, must gradually diminish the amount of brood it contains, and direct its energies chiefly to the accumulation of stores. This is, indeed, the habit of the bees, though they sometimes fail to observe it.

Should the weather be moist, and hence better suited to foster brood-rearing than honey-gathering, the queen will continue to lay eggs freely, the larvæ will be carefully nursed, and even drone brood regarded with favor. Then, if pasturage suddenly fails, the cells vacated by the maturing young will remain empty, and the approach of Winter will find the colony illy prepared to endure the long confinement that awaits them. The bee-keeper should endeavor by all possible means to ob viate such results. His policy and his management must be regulated according to the weather prevalent during the month. If it be dry, and permits the bees to gather honey plentifully, his main concern will be to furnish them with room for garnering their stores, by giving them access to surplus cases, and placing supers on his smaller hives.

But if his bees are in movable-frame hives, he can best aid them and secure his own interest by removing some of the full combs and replacing them with empty ones; thus saving them the labor of building combs, and enabling them to direct all their energies to the gathering of supplies.

The rapidity with which they can gather honey must determine the quantity which may be taken away; and while the pasture continues good, they will only labor the more assiduously if empty cells be constantly within their reach. This serves, in reality, to stimulate their industry; whereas, when they are conscious of possessing an abundance, they are apt to remit their exertions, and cease to labor with an activity proportioned to their numbers.

The rapid gathering of honey necessarily tends to restrict brood-rearing because the cells are supplied with nectar as soon as the young bees emerge, and the queen has none, or few, in which to deposit eggs.

If I understand Mr. Doolittle, he claims to possess bees which have reasoning faculties, special instinct, or habit, or he has educated them to do wonderful things in the line of breeding early in the season, and up to the time when the honey harvest is ready to boom—then the queens take a Summer vacation (?).

Of course a strain of bees possessing the merit claimed by Mr. D., should take the lead in the queen market, over even that really most meritorious race of bees—the Alpine Carniolans.

If the weather be warm and wet, and pasturage scarce, the bee-keeper must endeavor to check brood-rearing as much as possible. It is better that bees—especially young colonies—should be constrained to fill a limited (small) space thoroughly with comb and stores, than that they be permitted to expend honey in extending downward, or on numbers

of frames, the combs which would probably remain in large part empty in the Fall. They have need of the honey in Winter, and the empty combs could be of no service to them then.

The most effectual means, however, of arresting brood-rearing at this season (unless the very amiable or learned queens of the Doolittle stock are the breeders), is found in the confinement of the queen, or her entire removal, if she be superanuated. so as to render it doubtful whether she would survive the Winter. In fact, as the expulsion of the drones usually takes place in the latter part of July or early in August, this is the time for rearing young queens, and the removal of those 2 or 3 years old, or which are less fertile than a good queen should be. Reserve queens reared in advance for this special purpose, and kept in nuclei or small colonies, may now be used with great advantage in effecting the change, or supplying colonies which have become queenless after sending forth a swarm, or from which a swarm has been drummed out.

Parent colonies from which swarms have issued, should be examined 5 or 6 weeks after the old queen left, to ascertain whether they contain worker brood. If none can be seen, and no young bees are observed, and no disposition is shown to expel the drones, such colonies may be regarded as queenless, and should be supplied with eggs and larvæ to enable them to remedy their loss, though they will more speedily be brought into good condition, if a fertile queen be introduced.

Weak and late swarms should be strengthened by inserting combs containing sealed brood taken from the other colonies, and supplying them also with honey or sugar syrup. But brood should be taken only from very populous colonies. Instead of such management two or more weak colonies should be united, and the surplus combs preserved for use next season.

When pasturage begins to fail, the bees, accustomed to honey gathering, are prone to attack and rob other colonies—especially such as are queenless. If the population of these is already much reduced, the introduction of even a fertile queen will often not be of permanent advantage. They should, rather, be forthwith united with some other colony.

In districts where buckwheat is extensively cultivated, or Fall pasturage is abundant, it may do even as late as August 15 to make artificial colonies; especially if the apiarist has fertile queens in reserve to be used on such occasions. The expediency of doing this depends on the strength of the colonies, and the extent and quality of the pasturage within their reach. Generally, however, it is better to allow the bees to avail themselves of the opportunity to cram their hives thoroughly with supplies for the Winter, rather than to diminish their ability for efficient labor by subdivision.

In some districts, and in some years, early swarms produce what are called "virgin swarms." Whether these should be preserved and treated as independent colonies, or caused to return to the parent hive by destroying the queen, depends on the strength of the swarm, the period at which it issues, and the prospect that they may still be able to provide for their wants in the coming Winter.

As most bee-keepers consider themselves peculiarly favored when virgin swarms appear in their apiaries, and flatter themselves that their bees will prosper, there is a general disposition to hive and preserve them; and it is hardly likely that any counter suggestions which I might make, would induce the *lucky* bee-keeper to adopt a different policy.

Richford, N. Y.

Selecting Pure Stores for Wintering.

C. W. DAYTON.

As the time is at hand to begin preparing the bees for Winter, a few words upon that subject may not be amiss.

The part to be attended to now is to see that the colonies store a sufficient amount of the best honey in their hives so as to escape removal as surplus. They sometimes store nearly all the honey gathered in the sections, and then the bee-keeper depends upon their filling up with Winter stores from the Fall harvest.

But usually the Fall harvest is too light, or nothing at all, and in consequence the bees starve through the carelessness or negligence of the bee-keeper in not giving the colonies abundant stores of the honey that was gathered early in the season.

I read in the BEE JOURNAL lately that the most of the losses last Winter were caused from "extracting from the brood-chambers."

This may be true in some cases, and in others it may not be true. Sometimes

extracting from the brood-chambers may be just what saves the colonies.

For example, in the season of 1884, in June, just preceding the clover harvest, there came a harvest of honey-dew, or aphide honey.

When I saw the brood-chambers filled up with the blue, bitter honey, and nicely capped, I hastened around and ran all the combs through the extractor, getting from 10 to 25 pounds from each colony, except a few colonies that were not molested, partly for a test, and also because of the arrival of the clover harvest. Then when the white clover bloomed, they filled up the space with pure honey.

The effect of the honey-dew was watched during the next Winter, and few if any of those colonies in which the honey-dew remained came through the Winter—and these were all that died out of 65 colonies. In this case it was highly advisable to extract from the brood-chamber.

Though there has been no honey-dew here this season, it is reported in many localities, and at about the same season that it came in 1884.

Then, again, the honey-dew may come later in the season, so if the early honey is all taken out, the bees will get only honey-dew for Winter, which will almost surely bring failure.

It probably was not honey-dew that killed bees last Winter, but starvation from the bees not finding enough honey for Winter stores, or because the honey was extracted out by the bee-keeper, and not returned to them again when it was seen that they did not gather any in the Fall.

The brood-chamber should be allowed to fill up with the first good, pure honey that comes, and this should not be removed from the combs for any reason.

Some advise taking out the Winter stores and keeping it in the honey-house until Fall, but it gives me better satisfaction to leave such combs of honey in their respective hives. It ripens thoroughly, remains riper, because the hive is a better place to keep honey than any building, and I am surer to reserve a sufficient amount.

There should be as much care exercised in the selection and reservation of the Winter stores of the colony, as in the production of a few choice pounds to exhibit at the fair.

I do not think that proper stores alone will insure safe wintering, but I know from sad experience that the stores is one of the great factors, and that it is as much neglected as any.

Every one who has read the bee-periodicals very much, knows that there are many astonishing Winter losses now and then, and no one can tell any reason. I know of several bee-keepers, owning from 30 to 100 colonies, who produce comb-honey exclusively, and do not keep an extractor. Now, suppose their hives should fill up with honey-dew (bug-juice), as mine did in 1884, what would inevitably become of their apiaries?

This would indicate that to have success in wintering in some localities, one would be obliged to extract from the brood-chambers occasionally.

There is not one bee-keeper in ten but that looks forward to procuring the clover and basswood honey in marketable shape, and hastens away to sell it, and late in the Fall judges of the Winter stores by the space it occupies in the combs, or by lifting the hive, and he does not know whether the quality may compare with good hay or rotten straw.

Clinton, Wis., July 7, 1891.

Location of an Apiary.

B. E. RICE.

The subject of location means a good deal—much more than a great many would even think—and it seems to me that it would be almost useless to go on and attempt to explain what would be required to make a desirable location for bees, as well as a financial success for their owners, for I do not believe there is one person in five who would make the least effort to take advantage of it in any way.

Almost every one thinks their own ideas and ways are the best, and I do not know as I can blame them. At the same time, there are certain kinds of business, or trades, that people never become too old to learn, in order to manage them successfully, and, if I am not mistaken, we have got hold of one of them, in the care and management of the honey-bee.

I will show you as briefly as possible how some of our oldest bee-keepers locate their bee-yard, as they call it: One year ago last Fall I was visiting a bee-keeper living about 17 miles from Boscobel, who has kept bees for the last 40 years. He had at that time 140 colonies of bees, and as I stood there and looked at the sight, I had to laugh; and I guess you would, too.

He had all of those bees on not to exceed two square rods of ground.

There were four rows just far enough apart for a person to pass between them, and the barrels, boxes and gums were as close the other way as they would go together. He did not have a single bee-hive in the outfit; and then, to show his practical way, he allowed over 70 turkeys to roost every night on these bee-gums, as he calls them, and you can judge how they looked. He had lost, during that year, 60 swarms of bees, by not having their queens' wings clipped.

I asked him how much honey he generally got, on an average, per colony, and he told me from 8 to 12 pounds. I said to him: "You should get at least 100 pounds of comb-honey each from all good colonies, and of extracted-honey at least one-third more."

"Well," he said, "I wish I knew how to make them do that."

I took some little pity on the old gentleman, and explained to him what changes he should make—simply gave him the very best advice I could—and that was all the good it ever did, for he runs them the same way now, excepting that he has another brood of turkeys to roost on them.

My friends, it is this kind of honey-producers who injure us by selling their combination so much less than we can. I have spoken about this for the purpose of showing that it does make some difference how a hive is placed—whether down on the ground, and half covered in the grass, or out by itself, and up where the air can circulate and the sun strike it easily.

My ideas with regard to bees are just about the same as with all other things—that each one will do the best in its own element. For instance, take the horse, the cow, the sheep, or, in fact, all, and give them a good pasture, with plenty of nutritious grass and good, fresh water, and they will thrive and do well, and please their owner. So, on the other hand, if we expect to succeed with the bee business, we must start aright, and give them all the advantages that we can.

The question is asked, what constitutes a good location for bees? That is just what I would like to know, and see whether it beats my way. My idea of a choice for a location would be a piece of ground gently sloping to the south of east—sloping enough so that it may be readily drained of all water, as low, damp, and wet ground is very detrimental to bees—and care should be taken not to place them on ground where the water is liable to stand in small pools in the early Spring, although bees use a large amount of water in their domestic affairs, and especially in brood-rearing, and it would be well to see that good water was provided for them. They should also have some kind of protection on the north and northwest, to shelter them from the severe storms that often come from those points.

For convenience, this location should be as smooth a piece of ground as possible, on account of being kept nicely mowed off, which will be necessary, especially throughout the swarming season, and still more if one pretends to keep their queens' wings clipped, as it is a very perplexing job to find a queen-bee in grass and weeds from 6 inches to one foot high.

There are still other things that are very necessary, combined with the above, to make this location desirable, and the most important among them all, is pasturage for the bees. Before I would locate an apiary, I would satisfy myself as to these advantages, for without pasturage within their reach, it would be impossible for the bees to realize the expectations of their owners. And among some of the most important to have is the basswood, white clover, sumac, buckwheat, balm, ox-mint, raspberry, golden-rod, and button-ball.

Dozens of other honey and polien-producing plants, not mentioned here, would assist in making a desirable location for bees; and while speaking of these honey-producing trees, shrubs, vines and plants, I would especially advise every farmer who keeps bees, either for pleasure or profit, to increase the sowing of buckwheat, and let it be of the Japanese variety, which will give you a much heavier yield per acre, and surprise you as to the amount of honey it produces.

I wish all farmers would try sowing a piece of land to alfalfa clover. Those who have grown it claim that 3 or 4 good crops of hay can be taken from it during each season. This being the case, it would pay farmers to grow it, for at the same time it is called one of the best honey-producing plants known, and by its production is our only hope of competing with the large honey-producers of California, where thousand of acres of alfalfa clover are grown. It also makes one of the finest pasturages known, never drying out after being once well seeded.

We all can make our locations more desirable day by day, with a very little trouble, by having a supply of different kinds of seeds of honey-producing plants in our pockets, such as alsike clover,

sweet clover, boneset, spearmint, horse-mint, heart's-ease. These seeds should be sown in all nooks and corners, and, in fact, all undesirable places, and by the roadside, and if we could encourage the growth of dandelions more in waste places, it would be very beneficial to the bees, as the dandelion produces both honey and pollen.

The catnip is a fine bee-plant and I should protect its growth by all means, rather than to destroy it. I believe it is in bloom longer than most other plants.

Now, in closing this part of my essay, I will remark that one will have a good location for bees with the above advantages close by, or within a radius of 2½ or 3 miles of the apiary.

It is not a long job to lay out a bee yard, after the plan is formed. Some people think there can be more corn grown in crooked rows than in straight ones, but we will not attempt to argue the question, knowing that the straight ones look the best at least, and that is my idea—to lay the yard out in long, straight rows, and not have the rows less than 16 feet apart. This gives ample room to pass from one end of the yard to the other, and not come in contact with so many bees.

Then, with our hives five feet apart in the row, it makes it very convenient to run the wheelbarrow with a load of honey from any part of the yard to the bee-house, without going all the way directly in front of a row of hives.

Now, as we have the apiary laid out in straight rows, we will devise some variety of stands that the hives may rest on, instead of on or near the cold, damp ground, where numerous insects, and especially the ants, are trying to make inroads into their homes, keeping a good force of bees from other work to guard their hives.

I should advise that the stands for hives to rest on, be at least 10 or 12 inches above the surface of the ground, and each stand separate and alone, and I am sure you will approve of it. It is so much more convenient to work with and around it, without thumping it occasionally with the foot, and causing, sometimes, a warm commotion around us.

The nature and instinct of the honey-bees plainly show to us that they are not in their element down close to the ground, for if they were when they swarm and go to the woods, they would as quickly go into a hollow log as a tree; and still further, they would alight on the grass or ground as quickly as a tree or bush.

Now, I think it is of very great importance—that is, if we expect our bees to do well—for us to study their instincts and habits, and supply them, as far as we possibly can, with what they most desire, in order to make them happy and contented with their home.

I advocate good stands for hives to rest on for the following reasons:

1. The insects do not bother them half as much.
2. The bees will get out earlier in the morning.
3. I believe the bees get more honey.
4. It is their nature to be up off of the ground.
5. Hives dry off much quicker after storms.
6. They are much handier to work with at all times.
7. Giving a free circulation of air around the hive.

If there is any one here that thinks it makes no difference where and how a bee-hive rests, let them try an experiment, and place one hive on the ground, and another on a good stand, one foot high, and give them the same chance for one month, say, June, and I think there will not be many but will adopt the stands. I will say this, that all of us who have our hives 10 inches or one foot from the ground, should have a board of some kind to reach from the hive to the ground in a slanting position, for heavily laden bees to crawl up on, when they miss the alighting-board, which very often happens.

In closing this part of the subject, I will say, that it will be much easier to show a small model of the stand than to describe it in writing, so, therefore, please look it over and profit thereby.

Now, after the location and laying out into rows, and spacing the distance between the hives, or stands for them to rest on, the next question would be, which is the best way for our hives to face? This is a pretty hard one to answer, for we all differ so much. I have seen them face almost all points of the compass, with the exception of the north, and they might get used to that. I have mine face a trifle south of west, but it has been for my own convenience, and I do not like it, therefore, I am going to make a change; one that I am fully convinced will be a great benefit to the bees, and also a financial benefit to their owner.

The early morning sun has a good deal to do with the bees, and the sooner the sun strikes the front of the hive so much the better. It will warm up the inmates to activity, and they will un-

doubtedly take wing much sooner than those whose hives face almost any other way; and, taking all things into consideration, I should advise that our hives be placed on their stands so as to face south of east.

This will give them the benefit of the sun when most needed, and then, as it rolls around on its course toward midday, and when at that time being too hot generally, the grapevine shade protects the entire hive, and its occupants, when most needed.

(Concluded next week.)

CONVENTION DIRECTORY.

Time and place of meeting.

1891.

July 30.—Carolina, at Charlotte, N. C.
A. L. Beach, Sec., Pineville, N. C.

Aug. 6.—Rock River, at Sterling, Ills.
J. M. Burtch, Sec., Morrison, Ills.

Sept. 3.—Susquehanna County, at So. Montrose, Pa.
H. M. Seeley, Sec., Harford, Pa.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of the time and the place of each future meeting.—THE EDITOR.

North American Bee-Keepers' Association

PRESIDENT—P. H. Elwood....Starkville, N. Y.
SECRETARY—C. P. Dadant.....Hamilton, Ills.

National Bee-Keepers' Union.

PRESIDENT—James Heddon..Dowagiac, Mich.
SEC'Y AND MANAGER—T. G. Newman, Chicago.

Bee and Honey Gossip.

☞ Do not write anything for publication on the same sheet of paper with business matters, unless it can be torn apart without interfering with either part of the letter.

No Clover Honey.

There was no clover honey here to speak of, although the clover looked fine; but there will be some basswood honey. I had 26 colonies of bees of my own, and 55 colonies belonging to a neighbor, Spring count, and they have increased to 92 colonies altogether, so far. I work mostly for extracted-honey. My opinion is that all bee-keepers should join the Union; then they could better protect their interests.

LEWIS LAFLER.

Covington, Iowa, July 11, 1891.

Cheering Report.

My bees have done extra well this season, both as regards honey gathering and swarming. I extracted from the combs of some colonies five times within two months, securing nearly 400 pounds of good extracted-honey from 10 colonies. My increase is 11 swarms from 10 colonies, besides one swarm that went to the woods, and 2 of my colonies did not cast swarms this season; thus I have 21 colonies altogether. I can sell my honey for 10 cents per pound, cash. Sometimes I care for bees belonging to my neighbors. Some of them say they have a colony of bees which they desire me to examine, and I almost invariably find the bees queenless, or the hive full of moths. One man had a hive against which he had placed a broad board, at an angle of about 45°, and the bees had built the space between the hive and the board full of comb, and filled it almost full of honey. I smoked the bees, cut the comb loose from the hive, leaned the board against another hive, and removed the first hive to another position, and put a new hive, containing a frame of brood, in its place, then shook the bees off of the board into the new hive. I told the owner that was the first time I had ever robbed bees on a board.

A. C. BABB.

Greenville, Tenn., July 15, 1891.

No Honey-Dew this Summer.

We have 180 colonies of bees in good condition, but a detailed report of our experience would only be a repetition of your Seymour correspondence, page 76, excepting that we have not had so much rain. We have not had any honey-dew this Summer. Bees are working on basswood now, but we fear that it will not last long.

E. & O. CLARK.

Greenleaf, Wis., July 17, 1891.

Bees Storing Dark Honey.

I have been keeping bees for three years, and during that time have lost 25 colonies, mostly from starvation, owing to the drouth of last year. I began with a runaway swarm which I caught, and the next year I procured 15 colonies more. At present I have 64 colonies. Within the past 15 months I have had over 60 swarms, and only 2 that I know of went to the woods. As a rule they cluster in a cherry or apple tree, and I hive them by the use of the smoker, moving the hive immediately to where I

wish it to remain. In answer to Mr. Clark's request, page 21, I will say, that if it is bees only that he wants, he can secure them by preparing some hives, and putting them up in trees in the forest. Nail up a board, and tie the hive to that with a wire or a rope, as he can then remove the hive without jarring the bees. Put the hives up just before swarming time, and report the result. A great deal of honey-dew is reported in this vicinity. Bees are storing honey very fast, but it is quite dark, although some basswood honey is mixed in, making light streaks through it. It is singular how ignorant some bee-keepers are about bees, and still will not subscribe for a bee-periodical. One man who has kept bees much longer than I have, asked me what the difference was between a drone and a queen, and there are still others who call the queen the "king." C. A. SPENCER.

Farmersville, Mo., July 7, 1891.

Prospect for an Average Crop.

Bees are not doing as well as I had reason to expect, because of too much rain during the best honey-gathering period. Swarming has been progressing slowly but surely. Prospects for a Fall flow of honey are very favorable at present, and we may have an average crop yet. J. B. Ramage and myself have just received some Italian queens, the first imported into this part of the country, and they are doing nicely. The BEE JOURNAL is a welcome visitor at my house, and one that is looked for as regularly as the day comes.

Haynie, Wash. JOHN OTLY.

Antiquated Bee-Hives.

In looking over my apiary, I find that I have 2 colonies of very fine Italians, which, from the style of their hives, might be objects of much curiosity, at least, in the Apiarian Department of the great Columbian Exposition. The most antiquated of these hives is an old gum log, which has contained bees almost continuously for the past 50 years, and although its first colony was what used to be called a "buckwheat" swarm (one cast on Aug. 8), it wintered successfully, and the next season, and for nine successive seasons, the colony occupying the gum, was the first in an apiary of from 10 to 40 colonies to cast a swarm. The other colony is a swarm from the gum log, which I hived in an old-fashioned straw hive. Both colonies contain very large and beautiful Italian bees, with probably a dash of Syrian blood, which only adds to their value. Should next season be a good one, and should you think it worth the trouble, I believe I can pack them in such a manner that they would reach you in safety. The one in the straw hive, I might be willing to dispose of, but the gum log has been in our family for half a century, and I will never part with it as long as I am able to keep bees, and would wish it returned to me. WM. S. BARCLAY.

Beaver, Pa.

[These antiquated specimens are just what we desire to exhibit side by side with the modern inventions. We commend this offer to Dr. Mason, who will doubtless be the Superintendent of the Apiarian Department.—ED.]

No Honey in the Sections.

Will some of the readers of the BEE JOURNAL explain the cause of my 3 colonies of bees not working in the section-boxes, when there has been, and now is, an abundance of honey-bearing flowers, such as white clover, basswood, raspberries, etc. Have had one swarm, which is doing nicely, but the old colonies have not stored a pound of honey in the boxes. They are in simplicity hives. A. H. HAWLEY.

Vineland, N. J., July 13, 1891.

Black, Shiny Bees.

There is something about the "black, shiny bees" that has not been satisfactorily explained. Some one (the editor, I think) has said they are old bees that the workers are anxious to be rid of. If this is so, how happens it that of a dozen colonies only one has them for weeks, or months, even, and that one is afflicted with them all of the time? In the AMERICAN BEE JOURNAL of July 9, Mr. Bittenbender says, they "seem to come from colonies that have been robbed, and are stray bees." This is not satisfactory. There are only 2 colonies nearer to mine than three miles. Neither of them has been robbed. There has been no occasion for robbing, as there has been a continual honey-flow from red raspberries for four weeks, and all the colonies have plenty of honey. A few weeks ago one colony was troubled with them, and now another colony is affected. Neither of the explanations given tallies with the facts

as I have observed them. Possibly it is a matter of little consequence, yet it may become important. Is it another "nameless" bee disease? It seems clear to me that there is something the matter with the "black, shiny bees." Can Prof. Cook, or some other careful observer, explain the matter?

Walton, Mich. D. C. LEACH.

Sweet Clover.

I would like to know what you would call the enclosed flower? It was growing in a patch of alsike clover, which I sowed last Spring. I have never seen anything like it. Is the one with the white flower sweet clover? Bees are booming now. Basswood is just opening, and if the weather continues favorable, I think it will yield an abundance of nectar. Swarming is rather backward here, on account of the cold and wet weather. I have only had 3 swarms from 10 colonies, Spring count. The bees would build queen-cells, and then tear them out again, after they were capped. I would like to know if this is a common occurrence, as I have never known them to do that before. I have one colony that came out of the cellar queenless, which I have been unable to induce to rear a queen, and get her to laying. Have had 3 queens hatched out in this colony, and not one of them ever got to laying. I saw all of them after they were hatched, and then in a few days they would disappear. There were plenty of drones flying all the time, and I am at a loss to know what became of the queens. My bees wintered splendidly last Winter, with the exception of the colony that came out of the cellar queenless. S. C. BOOHER.

Danbury, Iowa, July 8, 1891.

[That having the small white flowers is *Melilotus alba*, commonly called sweet clover. It is an excellent honey plant; the nectar being of fine flavor and light color.—ED.]

Cream of Bee-Periodicals.

My thanks are due to J. M. Jenkins, of Wetumpka, Ala., as I feel indebted to the AMERICAN BEE JOURNAL, through him, for my success in bee-keeping, with the A B C of Bee-Culture, as a few years ago he sent me a sample copy of the BEE JOURNAL and *Gleanings*, and advised me to subscribe, and if at the end of subscription, I was not satisfied, he would pay the bill. Since that time I have taken others, but I consider them the cream of bee-periodicals.

Hamilton, N. C. S. D. MATTHEWS.

Wavelets of News.

Good Quality and Fair Prices.

Every man must support himself and his family by the business in which he is engaged. Therefore, when any one offers what he has to sell at prices that will not allow a margin sufficient to pay for his time, etc., it is evident that something is wrong.

Purchasers will be safe in making it a rule to always deal with reliable parties, and pay a fair price for what they want.

"Something for nothing" generally proves a disappointment to the one who expects it, and usually brings trouble and perplexity.

While the above is well suited to all the affairs of life, it is especially applicable to the very cheap queen traffic of the present time. Good queens cannot be reared at from 35 to 50 cents each, and the purchaser of such queens generally finds only "trouble and perplexity" at the end of such a transaction.—G. M. DOOLITTLE, in *Rural Home*.

Rocky Mountain Bees.

Honey bees are not natives of America, as one of our correspondens at Salt Lake City would have us believe. When John Elliott translated the Bible into the Indian language, there were no words expressive of honey and wax.

There is a native species in Brazil, but destitute of a sting, and different from the bees we have.

The traditions of the Indians concur with ours, that the honey bee came from Europe, and they regarded it as the harbinger of the white man, and believe that as fast as it advances, the red man must retire.

How early bees were introduced into this country is not definitely known. They were imported into Florida by the Spaniards previous to 1763, and appeared in New York in 1793. The little black bees of the Rocky Mountains—those ugly little fellows with the tremendous stings, always ready to fight—are evidently a cross from the earliest pioneer days here.—*Colorado Paper.*

Congratulations to a Bee-Keeper.

The *British Bee Journal*, commenting on the recent marriage of Mr. James Andrews Abbot, of Dublin, to Miss Price, of Robertstown, County Kildare, Ireland, which took place on May 26, says:

"Few bee-keepers were more actively engaged in the work of publicly furthering and teaching the 'art of modern bee-keeping,' a few years ago than Mr. James Abbot (or Jim Abbot, as he would insist on beng designated by his friends), and we know of no one man more deservedly popular. By his modest and genial bearing, he was—and we hope still is—a favorite everywhere, and it has been a mystery to us how such a good fellow managed to remain a bachelor for so long; and now that a 'daughter of Erin' has removed that 'fault' from his character, we are sure that his troop of friends, who are readers of the *Bee Journal*, in congratulating him, will cordially wish long life and happiness to James Abbot and his good wife."

We also extend the congratulations of ourselves and friends to friend Abbot, and bespeak for him a successful, prolonged and happy future.—*Canadian Bee Journal.*

Italianizing an Apiary.

An apiary can be Italianized at this season without great expense. We prefer to rear queens. If a colony of Italians is of pure blood, after it has cast a swarm, several queen-cells can be obtained by opening the hive and cutting out all but one. In so doing, care must be taken not to injure the cell. Better cut out a small portion of the comb with the cell, so that it will remain intact.

Such cells can be put into other colonies that we wish to Italianize, having first removed their queens. This is done by cutting out of a comb a piece similar in size and form to that attached to the queen-cell, and inserting the latter in its place. The hole thus cut should be a trifle smaller than the piece to be inserted, so that it will fit neatly and not fall out.

Sometimes the bees will refuse to receive such a cell. Hence, has originated the device of queen-cell protectors, made of wire-cloth, funnel shaped, and put over the cell.

We have generally succeeded without their use, in the following way: We first deprive the colony to be Italianized of the queen some days before. The bees will then begin to rear queen-cells. These we cut out and insert the queen-cell in the place of the one removed.

If you should have the queen-cell before the colony is deprived of its queen, put the cell in a common queen cage or wire cylinder, and hang it between the combs until the bees start the cells.

As soon as these are cut out, the cell, if it has not already hatched, can be inserted as above described. If it has hatched, introduce the queen in the usual way. At this season queens can be readily reared if the apiarist has good stock, or an imported queen, and can spare the bees.

By taking two or three combs containing brood, in all stages of development, and freshly laid eggs, with all adhering bees with the exception of the queen, and putting them in a nucleus, or hive, reducing the space by division-boards to the capacity of the nucleus, a small colony will be started that will rear for itself a queen. Some ten or twelve days after taking such a nucleus, queen-cells can be taken from it, as the bees usually build several, which can be used as other queen-cells, taken after a colony has cast a swarm. In this way, queens can be reared, and colonies multiplied at pleasure.—WM. BALLANTINE, in the *Farm Journal.*

Pine-Pollen Storm.

A few mornings ago, on arising, residents of Nashville, Tenn., were surprised and somewhat alarmed to find the ground covered with a yellow deposit resembling powdered sulphur, which, for a time, it was supposed to be. The substance was soon found, however, to be the pollen of pines, carried by the winds from a strip of pine forest extending from Louisiana through North Carolina to Virginia. The force of the winds is so great, and pine pollen so light, that the latter is sometimes carried from the pine regions to Chicago in such vast quantities that the waters of Lake Michigan for miles outside the city limits are covered with a thick, yellow scum.

This pollen, although minute in the present age, in prehistoric times was of great size, spores of some species of lycopodiums and selagenellas, which are allied to the coniferæ, having a diameter of one-sixteenth of an inch, and composed almost entirely some of the European coal beds.—*Exchange.*

AMERICAN BEE JOURNAL

ESTABLISHED IN 1861 — OLDEST BEE PAPER IN AMERICA

ADVERTISING RATES.

20 cents per line of Space, each insertion.

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A line of this type will admit about eight words. ONE INCH will contain TWELVE lines.

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Advertisements intended for next week must reach this office by Saturday of this week.

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Special Notices.

☞ Subscribers who do not receive their papers promptly, should notify us at once.

☞ Send us *one new* subscription, with $1.00, and we will present you with a nice Pocket Dictionary.

☞ The date on the wrapper-label of this paper indicates the end of the month to which you have paid. If that is past, please send us a dollar to pay for another year.

☞ Systematic work in the Apiary will pay. Use the Apiary Register. It costs:

For 50 colonies (120 pages) $1 00
" 100 colonies (220 pages) 1 25
" 200 colonies (420 pages) 1 50

☞ As there is another firm of "Newman & Son" in this city, our letters sometimes get mixed. Please write *American Bee Journal* on the corner of your envelopes to save confusion and delay.

CLUBBING LIST.

We Club the *American Bee Journal* for a year, with any of the following papers or books, at the prices quoted in the **LAST** column. The regular price of both is given in the first column. One year's subscription for the American Bee Journal must be sent with each order for another paper or book:

	Price of both.	*Club.*
The American Bee Journal	$1 00	
and Gleanings in Bee-Culture	2 00	1 75
Bee-Keepers' Guide	1 50	1 40
Bee-Keepers' Review	2 00	1 75
The Apiculturist	1 75	1 65
Canadian Bee Journal	1 75	1 65
American Bee-Keeper	1 50	1 40
The 7 above-named papers	6 00	5 00
and Langstroth Revised (Dadant)	3 00	2 75
Cook's Manual (1887 edition)	2 25	2 00
Quinby's New Bee-Keeping	2 50	2 25
Doolittle on Queen-Rearing	2 00	1 75
Bees and Honey (Newman)	2 00	1 75
Binder for Am. Bee Journal	1 60	1 50
Dzierzon's Bee-Book (cloth)	3 00	2 00
Root's A B C of Bee-Culture	2 25	2 10
Farmer's Account Book	4 00	2 20
Western World Guide	1 50	1 30
Heddon's book, "Success,"	1 50	1 40
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Convention Hand-Book	1 50	1 30
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Orange Judd Farmer	2 00	1 75
Farm, Field and Stockman	2 00	1 75
Prairie Farmer	2 00	1 75
Illustrated Home Journal	1 50	1 35
American Garden	2 50	2 00
Rural New Yorker	2 50	2 00
Nebraska Bee-Keeper	1 50	1 35

Do not send to us for sample copies of any other papers. Send for such to the publishers of the papers you want.

The Convention Hand-Book is very convenient at Bee-Conventions. It contains a simple Manual of Parliamentary Law and Rules of Order for Local Bee-Conventions; Constitution and By-Laws for a Local Society; Programme for a Convention, with Subjects for Discussion. In addition to this, there are about 50 blank pages, to make notes upon, or to write out questions, as they may come to mind. They are nicely bound in cloth, and are of the right size for the pocket. We will present a copy for one new subscription to the BEE JOURNAL (with $1.00 to pay for the same), or 2 subscribers to the HOME JOURNAL may be sent instead of one for the BEE JOURNAL.

Clubs of 5 New Subscriptions for $4.00, to any addresses. Ten for $7.50.

If you have a desire to know how to have Queens fertilized in upper stories, while the old Queen is still laying below—how you may *safely introduce* any Queen, at any time of the year when bees can fly—all about the different races of bees—all about shipping Queens, queen-cages, candy for queen-cages, etc.—all about forming nuclei, multiplying or uniting bees, or weak colonies, etc.; or, in fact, everything about the queen-business which you may want to know, send for "Doolittle's Scientific Queen-Rearing;" a book of 170 pages, which is nicely bound in cloth, and is as interesting as a story. Price, $1.00. For sale at this office.

Supply Dealers should write to us for wholesale terms and cut for Hastings' Perfection Feeders.

Red Labels are quite attractive for Pails which hold from 1 to 10 lbs. of honey. Price, $1.00 per hundred, with name and address printed. Sample free.

A Nice Pocket Dictionary will be given as a premium for only **one new** subscriber to this JOURNAL, with $1.00. It is a splendid little Dictionary—just right for the pocket. Price, **25 cents.**

Please send us the names of your neighbors who keep bees, and we will send them sample copies of the BEE JOURNAL. Then please call upon them and get them to subscribe with you.

Binders made especially for the BEE JOURNAL for 1891 are now ready for delivery, at 50 cents each, including postage. Be sure to use a Binder to keep your numbers of 1890 for reference. Binders for 1890 only cost 60 cents, and it will pay you to use them, if you do not get the volumes otherwise bound.

When talking about Bees to your friend or neighbor, you will oblige us by commending the BEE JOURNAL to him, and taking his subscription to send with your renewal. For this work we will present you with a copy of the Convention Hand-Book, by mail, postpaid. It sells at 50 cents.

It is a Prize in Itself.—I have just seen the ILLUSTRATED HOME JOURNAL for June, with the Rebus and offer of prizes for its solution. As the paper, at 50 cents a year, is a prize in itself for the amount, I take pleasure in enclosing it, and if my answer to the Rebus is correct, you can place me as a contestant for the prize. H. E. LAING.

Chicago, Ills.

The Bee-Keepers' Directory, by Henry Alley, Wenham, Mass. It contains his method for rearing queens in full colonies, while a fertile queen has possession of the combs. Price by mail, 50 cents.

☞ The Union or Family Scale has been received, and I am much pleased with it. W. H. KIMBALL.

Davenport, Iowa.

We send both the Home Journal and Bee Journal for one year, for $1.35.

Very Well Pleased. — The Sewing Machine and Scales are received in good order, and I am well pleased with them. They do good work. The sewing machine is ornamental as well as useful. The scales are very handy for family use.—G. RUFF, Burlington, Iowa.

Bee-Keeping for Profit, by Dr. G. L. Tinker, is a new 50-page pamphlet, which details fully the author's new system of bee-management in producing comb and extracted-honey, and the construction of the hive best adapted to it—his "Nonpareil." The book can be had at this office for 25c.

Calvert's No. 1 Phenol, mentioned in Cheshire's Pamphlet on pages 16 and 17, as a cure for foul-brood, can be procured at this office at 25 cents per ounce, by express.

HONEY AND BEESWAX MARKET.

NEW YORK, July 18.—Demand less for extracted-honey, with increasing supply. No comb-honey in market. We quote: Extracted—common, 70c per gal.; good to choice, 72@75c; orange bloom, 7@7½c; new California, 6½@7c per lb. Beeswax: Supply limited, demand light; firm at 28@30c.
HILDRETH BROS. & SEGELKEN, 28-30 West Broadway.

KANSAS CITY, July 18.—Demand fair for new 1-lb. comb, at 15@16c. Extracted, 6@6½c. Beeswax, in good demand and light supply at 25c.
CLEMONS, MASON & CO., Cor. 4th and Walnut Sts.

CINCINNATI, July 18.—Demand only fair, with good supply. We quote: Choice comb, 12½@15c. Extracted, 5@8c. Beeswax is in slow demand and good supply, at 23@25c for good to choice yellow.
C. F. MUTH & SON, Freeman & Central Aves.

CHICAGO, July 18.—Demand for comb and extracted honey not very active. We quote: Comb, 12@17c; extracted, 7@8c. Beeswax in good demand at 27c.
S. T. FISH & CO., 189 S. Water St.

KANSAS CITY, July 18.—Demand for honey light, with light supply. New crop arriving, and very poor. We quote: Comb—1-lb. white, 16c; dark, 13c; 2 lb. white, 14c; dark, 11c. Extracted—white, 7c; dark, 5c. Beeswax, none in market.
HAMBLIN & BEARSS, 514 Walnut St.

CHICAGO, July 18.—Demand light, and the new honey offered not very white; a fancy article of new comb-honey will sell at 17c. We quote: Comb, 15@17c. Extracted, 6@8c, as to color and quality. Beeswax: Demand equal to supply, at 28.
R. A. BURNETT, 161 S. Water St.

BOSTON, July 17.—Demand light, supply small. We quote: Comb, 14@18c; extracted, 7@9c. Beeswax: None in market.
BLAKE & RIPLEY, 57 Chatham St.

ALBANY, N.Y., July 17.—Demand for honey very light. Attractive new comb-honey would sell at 16c. Extracted slow, at 6@8c. Beeswax, scarce and in demand at 30c.
H. R. WRIGHT, 326-328 Broadway.

NEW YORK, July 17.—Demand fair, and shipments from the South increasing. We quote: Choice comb, 14@15c. Extracted—Florida, 7@7½c; California, 7@7½c. Southern, 75@85c per gallon. Beeswax, in light supply and small demand at 29@30c.
F. G. STROHMEYER & CO., 122 Water St.

MILWAUKEE, July 18.—Demand for honey fair; supply moderate. Old-crop honey out of the way, and market in good order for shipments of new. We quote: Comb, 1-lb., 16@18c. Extracted, white, 7½@8c. Beeswax, in fair supply and dull, at 25@28c.
A. V. BISHOP, 142 W. Water St.

SAN FRANCISCO, July 15.—Demand for honey good, and supply light. Short crop in entire State. We quote: Comb, 1-lb., 12@14c; no 2-lb. in market. Extracted, 5½@6c. Beeswax in light demand, and market almost bare, at 24@26c.
SCHACHT, LEMCKE & STEINER, 16 Drum St.

DETROIT, July 18.—Demand for comb-honey is slow and supply fair. Quality of honey coming in is good. We quote: Comb, 13@15c; extracted, 7@8c. Beeswax in good supply, and demand easier, at 27@28c.
M. H. HUNT, Bell Branch, Mich.

CHICAGO, July 18.—Honey market quiet, and shipments increasing. A fancy white comb, in clean package, will find ready sale at a high figure. We quote: Comb, 15@17c. Extracted, 6@8c. Beeswax scarce and in good demand at 27@31c.
J. A. LAMON, 44-46 S. Water St.

NEW YORK, July 16.—New comb-honey arriving in small quantities. Demand very light. We quote: 1-lb., 16@20c, as to quality and style of package. Extracted—in good demand at 6@8c. Beeswax in fair demand, at 28@31c, for choice yellow.
F. I. SAGE & SON, 183 Reade St.

Great Interest is now taken in anything pertaining to Alaska, and those who cannot go and see what that part of our country is like for themselves, will be glad to read of the experiences of two persons who have been there, as set forth in "A Trip to Alaska," by Dr. A. Victoria Scott and Emily J. Bryant, in *Frank Leslie's Popular Monthly* for August. The article is profusely illustrated.

Punctual.—I was surprised to receive the feeder as soon as I did. I like it very well. I receive mail matter in a shorter time from you than from Carlisle, O., only eight miles from here.
JOHN H. ROHRER.
Tippecanoe City, O., July 16, 1891.

The Honey-Bee: Its Natural History, Anatomy, and Physiology. By T. W. Cowan, editor of the *British Bee Journal*, illustrated with 72 figures and 136 illustrations. $1.00. For sale at this office.

Supply Dealers desiring to sell our book, "Bees and Honey," should write for terms.

Convention Notices.

☞ The Carolina Bee-Keepers' Association will meet at the Court House, in Charlotte, N. C., at 10 o'clock a.m., on Thursday, July 30, 1891.
A. L. BEACH, Sec., Pineville, N. C.

☞ The Rock River Bee-Keepers' Association will meet at Sterling, Ills., on Thursday, Aug. 6, 1891.
J. M. BURTCH, Sec., Morrison, Ills.

☞ The ninth annual meeting of the Susquehanna County, Bee-Keepers' Association will be held on Thursday, Sept. 3, at South Montrose, Pa.
H. M. SEELEY, Sec., Harford, Pa.

Removal. — Circumstances have made it to our advantage to remove to more commodious quarters, and we may hereafter be found at 199, 201 and 203 East Randolph Street—two blocks north and one block east of our former location. This move doubles our floor space —of which we now have over 10,000 square feet. Our former location was in the fifth floor of a building, but we now occupy the *third* floor of a building near the corner of Fifth Avenue and Randolph Street. Our friends are always welcome.

You Need an Apiary Register, and should keep it posted up, so as to be able to know all about any colony of bees in your yard at a moment's notice. It devotes two pages to every colony. You can get one large enough for 50 colonies for a dollar, bound in full leather and postage paid. Send for one before you forget it, and put it to a good use. Let it contain all that you will want to know about your bees—including a cash account. We will send you one large enough for 100 colonies for $1.25; or for 200 colonies for $1.50. *Order one now.*

A Magnificent double page of strikingly beautiful pictures of busy street scenes in Chicago is the chief attraction of *Frank Leslie's Illustrated Newspaper* last week.

☞ The sewing machine I got of you still gives excellent satisfaction—W. J. PATTERSON, Sullivan, Ills.

Wants or Exchanges.

Under this heading, Notices of 5 lines, or less, will be inserted at **10 cents per line,** for each insertion, when specially ordered into this Department. If over 5 lines, the additional lines will cost 20 cents each.

FOR SALE.—Thirty colonies Hybrid Bees, in 10-frame Langstroth Hives; all straight combs, built on foundation. Price, $4.00 per colony. Can be shipped at once. JESSE FAIRCHILD, 1241 Homan Ave., Chicago, Ills. 3Atf

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COMB FOUNDATION,

IN 25-POUND BOXES.

WE CAN now furnish the **Van Deusen** extra thin flat-bottom Foundation, put up in 25-pound boxes, in sheets 16½x28 inches, at $13.75 per box, 12 feet to the pound.

☞ The above is a **SPECIAL OFFER,** and is a **BARGAIN** to all who can use that quantity. All orders for any other quantity than exactly 25 pounds (or its multiple) will be filled at the regular price, 68 cts. per pound.

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